

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,160	10/21/2005	Erwin Bauer	2003P02166WOUS	7638
Eric C. Swanso	7590 12/06/2007		EXAM	INER
Siemens Corporation			TRIEU, THAI BA	
170 Wood Ave	perty Department nue South		ART UNIT	PAPER NUMBER
Iselin, NJ 0883	0		3748	
			MAIL DATE	DELIVERY MODE
			12/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	44					
	Application No.	Applicant(s)				
L	10/554,160	BAUER ET AL.				
Office Action Summary	Examiner	Art Unit	-			
	Thai-Ba Trieu	3748				
The MAILING DATE of this communication app						
Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING Do Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMM 36(a). In no event, however, m will apply and will expire SIX (6) a, cause the application to become	JNICATION. ay a reply be timely filed MONTHS from the mailing date of this communic ne ABANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 10 O	october 2007.	•				
2a) This action is FINAL . 2b) This	action is non-final.					
3) Since this application is in condition for allowa	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	Ex parte Quayle, 1935	C.D. 11, 453 O.G. 213.				
Disposition of Claims						
4) Claim(s) 24,26-32,34-37,39-42 and 44-46 is/ar 4a) Of the above claim(s) is/are withdray 5) Claim(s) 24,26-32,34-37,39-42 and 44-46 is/ar 6) Claim(s) is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or	wn from consideration re allowed.					
Application Papers		•				
9) The specification is objected to by the Examine	er.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex	•	•				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the prio application from the International Bureau * See the attached detailed Office action for a list	s have been received is have been received rity documents have b u (PCT Rule 17.2(a)).	in Application No een received in this National Stage	Đ			
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	Pape 5) 🔲 Notic	riew Summary (PTO-413) r No(s)/Mail Date e of Informal Patent Application :				

10/554,160 Art Unit: 3748

DETAILED ACTION

This Office Action is in response to the Amendment filed on October 10, 2007.

Applicant's cooperation in amending the claims to overcome the claim rejections relating to indefinite claim language is also appreciated.

Claims 24, 29-30, 32, 37, 42 were amended; and claims 1-23, 25, 33, 38, and 43 were cancelled.

This application is in condition for allowance except for the following formal matters:

Since Claims 37, 39-72, and 44-46 are method claims; applicants are suggested to revise these claims in the format of method claims, for example:

-- 37. A method for influencing an induction gas temperature of an internal combustion engine, comprising:

compressing induced fresh air having a first temperature (T1) before compression;

expanding the compressed induced fresh air such that the compressed and subsequently expanded fresh air has a second temperature (T2) greater than the first temperature;

recording the second temperature (T2) after the expansion;

recirculating exhaust gas with an exhaust gas recirculation device to combine exhaust gas from an earlier combustion cycle with the fresh air to form a mixture featuring exhaust gas and fresh air:

Application/Control Number:

10/554,160 Art Unit: 3748

cooling exhaust gas with an exhaust gas cooler, connected the exhaust gas cooler to the exhaust gas recirculation device to influence the temperature of the

exhaust gas b controlling the heat flow within the exhaust gas recirculation device;

providing a control/regulation/computation device which includes a first device
and a second device;

calculating a required exhaust gas temperature <u>with the first device</u>, the first device connected to [[a]] <u>the</u> second device for calculating a coolant through-flow of the exhaust gas cooler, the second device is connected via a coolant flow regulation path to a coolant flow controller;

wherein <u>said calculating the required exhaust temperature are based</u> on <u>determining/sensing/measuring/computing</u> measured values and set-point values <u>of</u> [[for calculating the required exhaust temperature are assigned to]] engine operating variables selected from the group consisting of: exhaust gas temperature, recirculated exhaust gas mass, recirculated exhaust gas quantity, air/fuel temperature, air/fuel mass, air/fuel quantity, induction gas temperature, induction gas mass, induction gas quantity, coolant temperature, oil temperature of the coolant, oil flowing through the exhaust gas cooler, coolant mass, oil mass, coolant quantity, oil quantity of the coolant, and oil flowing through the exhaust gas cooler; and

wherein explicitly influencing the combustion chamber temperature
by controlling the heat flow to the combustion chamber and thereby the
energy level in the combustion chamber are based on/depends upon the

Art Unit: 3748

determined/ sensed/ computed measured values, the determined/ sensed/ computed set-point values; the determined/ sensed/ computed measured values temperature increase of the fresh air from the first temperature (T1) to the second temperature (T2) [[the control/regulation/computation device uses the measured values, set point values, and the temperature increase of the fresh air from (T1) to (T2) to explicit influence the combustion chamber temperature by controlling the heat flow to the combustion chamber and thereby the energy level in the combustion chamber.]] -

-- Claim 39, The method in accordance with claim 37, wherein [[compression]] the compressing step is performed by an exhaust gas turbocharger .--

Claims 40-42 and 44-46 should be revised as the format being set forth above.

Conclusion

Prosecution on the merits is closed in accordance with the practice under Ex parte Quayle, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire TWO **MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

Application/Control Number:

10/554,160 Art Unit: 3748 Page 5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB

November 28, 2007

Thai-Ba Trieu

Primary Examiner

Charbabrille

Art Unit 3748